Telephone-based patient self-management program might be effective in reducing osteoarthritis-related pain

Synopsis

Summary of: Allen KD et al (2010) Telephone-based self-management of osteoarthritis: a randomized trial. *Ann Intern Med* 153: 570–579. [Prepared by Kåre Birger Hagen and Margreth Grotle, CAPs Editors.]

Question: What are the comparative effects of telephone-based self-management support, health education materials (attention control), or usual care for primary care patients with hip or knee osteoarthritis (OA)? ***Design***: A randomised clinical trial with equal assignment to three intervention groups. ***Setting***: Primary care clinic, USA. ***Participants***: Men and women with a physician diagnosis of hip or knee osteoarthritis, and persistent, current symptoms. Exclusion criteria included other rheumatologic conditions, psychoses, dementia, or being on a waiting list for arthroplasty. Randomisation of 523 participants allocated 174 to self-management, 175 to health education, and 174 to usual care. ***Interventions***: The self-management intervention included two main components: providing education, and helping participants develop goals and action plans related to osteoarthritis management. Participants received written and audio versions of osteoarthritis self-management educational materials and exercises, and were asked to identify and write down goals and corresponding action plans related to their osteoarthritis symptoms and management. A health educator called participants monthly by telephone for 12 months to discuss key points from the educational modules and the participant's goals and action plans. Participants in the health education group received written and audio materials regarding common health problems, as well as related screening recommendations. The health educator also called participants monthly for 12 months to review key points from the educational modules, and assess whether participants were being screened appropriately. ***Outcome measures***: The main outcome was the pain subscale of the Arthritis Impact Measurement Scales-2 (AIMS2). Secondary outcomes included the AIMS2 physical function and affect subscales, the Arthritis Self-Efficacy Scale (ASES), and a 10-cm pain visual analog scale (VAS) measured at 12 months follow up. ***Results***: 461 (90%) participants completed the study. The mean AIMS-2 pain score (range 0–10) in the self-management group was 0.4 points lower (95% CI −0.8 to 0.1) than in the usual care group, and 0.6 points lower (CI −1.0 to −0.2) than in the health education group. The only significant differences between the groups in secondary outcome measures were for ASES in favour of self-management over health education (0.4 points, 95% CI 0.0 to 0.8) and VAS-pain in favour of self-management over health education (–1.0 point, 95% CI –1.5 to –0.5) and usual care (–1.1 point, 95% CI –1.6 to –0.6). Health care use did not differ across the groups. ***Conclusion***: In patients with knee and hip OA, an entirely telephone based self-management support program resulted in modest improvements in pain as compared to general health education and usual care.

Commentary

Osteoarthritis is a condition characterised by pain, disability and impaired quality of life. It is one of the leading causes of pain and disability for the adult population worldwide, and the prevalence is increasing mainly due to the growing proportion of elderly and overweight. The present study represents a timely and important contribution in relation to this large public health challenge. Self-management is recommended as a core treatment for hip and knee OA. Recent meta-analyses show significant, but very small, effect sizes in improving pain and function. For telephone interventions, effect sizes are comparable (Zhang 2010). This trial is well conducted, has sufficient power, and includes an attention-control group with 12 months follow-up. The intervention effects, however, are small. Choosing the AIMS2 pain subscale as primary outcome could be debated. First, as the intervention aimed to enhance self-efficacy, the ASES might have been a more appropriate primary outcome. Second, it is a composite score including different constructs (sleep, pain, stiffness). Third, the threshold for clinical important difference for this score is not known. It is interesting that the highest difference in pain scores was found comparing the self-management group with the attention-control group, and not the usual care group. However, this lack of 'attention effect' is not addressed in the discussion. Potentially, the health education interventions increased attention towards screening and awareness of potential health problems resulting in adverse effects. This study includes a relevant, low cost, feasible self-management support intervention. Telephone-based interventions are particular suitable for trials in rural areas and for older persons with mobility limitations. As this study mainly included men (93% of sample) who were overweight, further studies are warranted before the results can be generalised to a larger population.

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Reference

Zhang W et al (2010): Osteoarthritis Cartilage 18: 476–499.